

# THE YOUTH'S INSTRUCTOR

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Volume 43, Number 45,  
A Journal for Youth and Children.  
(Entered at the Post-office at Battle Creek.)

BATTLE CREEK, MICH., NOVEMBER 7, 1895.

1 Dollar a year.  
Single Copy, Three Cents.



## JAPANESE HOMES.

I HAVE been telling you something of the history and religion of Japan; I will now endeavor to give you a glimpse of the people in their homes. Their houses are quite unlike ours, but are well suited to the needs of the inmates.

The ordinary Japanese house is a light frame-work structure. There are no stationary walls all around, such as we have; but the outside is protected by sliding doors, called "amado," which are all slid into a box in the daytime. If the weather is warm, the house remains open to outside air all day long; but in winter semitransparent paper screens, called "shoji," replace the sliding wooden doors. Rooms are separated from each other by paper slides called "fusuma," which run in grooves at the top and bottom. By taking out these screens, several rooms can be thrown into one. The best apartments in a Japanese house are usually at the back, so that the occupants may look out upon the flower garden, which is also in the rear.

But really the Japanese can scarcely be said to have flower gardens,—at least not such as we see in this country. A flower garden conveys to our minds the idea of a little parterre, laid out in stiff, rectangular beds, in which bloom various kinds of annuals in summer, but which are bare in winter, except for the shrubbery. Now a Japanese garden is a little park in miniature. If there are flowers, they are removed as soon as their season of bloom is over, and others put in their places, as long as the warm weather continues. There are trees, rocks, hillocks, lakelets, and tiny streams spanned by bridges. You can easily imagine, when looking out upon one of these gardens, that you are gazing upon the picture of a beautiful landscape. The Japanese are great lovers of nature, and endeavor to reproduce some of her beauties in the tiny little spaces of ground allotted them at their back doors. Only the wealthy people can afford to have such large, beautiful landscape gardens as the one represented in the picture.

The floors of a Japanese house are covered by thick straw mats, upon which the people sit in the daytime and sleep at night. They have no such furniture as tables, chairs, bedsteads, etc., in their houses. Thick quilts are laid upon the floor at night for beds, and in the daytime they are folded up and put away. The Japanese eat from little trays, one of which is placed before each member of the family. These trays contain several tiny bowls filled with rice, fish, etc.

There are no grates or fireplaces in Japanese rooms, but, instead, the "hibachi." The hibachi is a large bronze or metal bowl, or an ordinary wooden box lined with tin. It is filled to about three inches of the brim with ashes, upon which glow a few live charcoals. A tripod upon which hangs a tiny kettle of water, is thrust down over the coals. Around the hibachi the family sit or squat upon their feet, which keeps their lower extremities warm, while they toast their fingers over the coals. They constantly smoke from tiny pipes. When thirsty, they pour some of the hot water upon the tea leaves kept in readiness in the little pot which is always at hand, and drink the rather bitter beverage. If a friend or acquaintance comes in, it is considered quite

sons and their wives and children, besides others. In America young men toil to amass wealth for old age; not so in Japan. At about fifty years of age the father gives up his business and property, if he has any, to his sons, who are expected to support the old people as long as they live. The children usually regard the care as a sacred trust, treating their parents with the utmost respect and consideration. They never seem to weary of ministering to the wants of the old, and when times are hard and food is scarce, as is often the case in Japan, they cheerfully deny themselves and their children to keep their parents in comfort. Here is a lesson to young America. With all our boasted superiority and civilization, we can certainly learn something from



A JAPANESE GARDEN.

rude not to offer him a cup of tea and a slice of cake, or other refreshments.

The population of Japan is very much crowded. The country is not quite as large as California, and only an eighth of that can be cultivated, on account of the mountains and hills. There are forty-one million people. This allows less than a third of an acre of arable land for each person.

The young folks in Japan who get married are usually too poor to set up housekeeping for themselves, and even if they were financially able, they would probably remain with the husband's parents, because that is the custom of the country. There is generally a large family in each household—father, mother, grandfather, grandmother, and the

them in regard to gratitude to our parents and respect to the aged.

Japanese children are early instructed in rules of politeness. They are taught to be kind and considerate to all. "The grandfather and grandmother must come first of all in everything; no one at meals must be helped before them in any case; father and mother come next, and after them the children, according to their ages. A younger sister must always wait for the elder, and pay her due respect, even in the matter of walking into the room before her." We might well emulate the politeness of the Japanese in some respects. Their soft, gentle manners are often in striking contrast with the rude, rough conduct of American boys and girls.



While we can find much to admire in the Japanese social system, we can also find many things to condemn, especially their worship of idols. Now, dear children, will you not pray that the true God, who is so loving and kind, will send teachers to them, to show them how vain and foolish it is to be bowing down to stocks and stones, which can neither see nor hear, and to teach them about their kind heavenly Father, who is constantly bestowing rich blessings upon them, though they know him not?

MRS. J. A. BRUNSON.

### RELIGION MEANS SERVICE.

"WE are laborers together with God." Christ is the head of the church on earth, and he requires that every one who believes in him as the Redeemer, shall surrender himself to obey his word, to love God supremely, and to love as Christ loved those who are perishing in sin. In every church there should be men who will set in operation missionary efforts, and teach the workers how to exercise tact, and how to carry out the best missionary methods. There should be many workers in every city, and laborers sent to every possible field. We have the promise of the Creator of all worlds, the promise of him who has all power at his command in heaven and earth, that he will be with us, and will work with the living, working church on earth. He appoints angels to coöperate with human agencies in advancing his work for the saving of perishing souls. All heaven is employed in ministering to the heirs of salvation, imparting the renewing power of the Holy Spirit to those who shall work for the salvation of souls.

No church is to be passive; no individual member of the church is to be irresponsible and unemployed. The Lord soon cometh out of his place to punish the inhabitants of the world for their iniquity; the earth shall disclose her blood, and no more cover her slain. The message of warning must be carried to sinners; it must be proclaimed to those who have not had the light of truth. The church must be educated to the idea that they are not to use their time and their money upon themselves, but must devote themselves to the diffusing of light to those who are in darkness. The whole law is fulfilled by him who loves God with all his heart, and his neighbor as himself. Upon these two principles of love hang all the law and the prophets. The Lord Jesus loves those for whom he died, and he requires all who believe on his name to coöperate with him in self-denial and self-sacrifice. Those who believe in Christ as their personal Saviour will put forth earnest efforts to make him known. He is the way, the truth, and the life, and by presenting the truth as it is in Jesus, souls that are perishing will be saved.

We need to look to God continually, and fortify our souls by earnest prayer and watching thereunto. Religion means service, earnest, faithful service to God. All who have been chosen of God are to be co-partners with him. They cannot combine self and selfishness with true, faithful service. All who enter the portals of bliss will be found faithful. They will have rendered such service that their Redeemer can say to them, "Well done, thou good and faithful servant: thou hast been faithful over a few things, I will make thee ruler over many things: enter thou into the joy of thy Lord." The Lord has laid out in distinct lines the conditions that must be met if we would be his followers in deed and in truth. He says, "If any man will come after me, let him deny himself, and take up his cross, and follow me."

I would impress upon our young men and young women the necessity of making their calling and election sure. I would beseech you to do no haphazard or uncertain work where your eternal interests are involved. By so doing you lose happiness, peace, comfort, and hope in this life, and you lose also your immortal inheritance. My young friends, you are judgment-bound, and through the grace of Christ you may render obedience to the commands of God, and daily gain fortitude and strength of character, so that you need not fail or be discouraged. Divine grace has been abundantly provided for every soul, so that each one may engage in the conflict and come off victorious. Do not become sluggish; do not flatter yourselves that you may be saved in walking in accordance with the natural traits of your character—that you may drift with the current of the world, and indulge and please self, and yet be able to withstand the forces of evil in a time of crisis, and come off victorious when the battle waxes hot. You must learn daily how to use the weapons of your warfare, and to wield the sword of the Spirit, which is the word of God. You must learn how to resist the devil, that he may flee from you. You must learn every day to obey the orders of the Captain of the Lord's host.

My young friends, do you pray? Are you educating yourselves to offer petitions for pure thoughts, for holy aspirations, for a pure heart and clean hands? Are you educating your lips to sing the praises of God, and are you seeking to do the will of God? This is the kind of education that will be of the greatest value to you; for it will aid you in the formation of Christ-like character. You are thus learning how to obtain the robe of Christ's righteousness, by appropriating to yourself the ample promises of his word.

Many feel stirred with an ambition to minister to others. Let them learn to walk humbly with God, to be doers of his word, where they are. Let them learn to be obedient, to serve in whatever capacity they may. Let them learn to do the humblest work, and to realize that they are serving Christ in whatever circumstances they may be placed. In doing humble physical work, you may reveal the fact that God is with you, and that you are trading upon the talents he has intrusted to you. Right where you are, opportunities and privileges will present themselves to you, and if you are seeking to serve Christ, you will see and improve them. In the humblest situations you will find occasions for the exercise of firm integrity and fidelity; and if faithful in serving God in the lowest place, you will be intrusted with higher responsibilities. If you are faithful in a few things, your faithfulness will testify that you are a student in the school of Christ, and that you are cultivating your ability to serve him in larger fields. Jesus says, "He that is faithful in that which is least is faithful also in much."

MRS. E. G. WHITE.

### THE PARABLE OF THE CLOCKS.

I HAVE a clock that has the peculiarity of striking correctly, but pointing incorrectly. The hands, for instance, will indicate four o'clock while the strike will be one, and this upon comparison with the regulator will be found correct. When this clock is examined, the source of its idiosyncrasy is found to be external. It is discovered that the hour-hand has become loose upon the shaft, and, consequently, when it gets around to one on the dial plate, it drops of its own weight to four.

Please remember that this clock is a good

and correct striker, and that its trouble is external and easily remedied.

Of strange clocks I have had my share. I can, therefore, relate that I once had a clock that pointed correctly but struck incorrectly. The hands, for example, would point to one while the strike would proclaim four, or six, or eleven perhaps. The pointing was all right; it was the striking that was wrong. And the source of this false striking was found to be deep. It was within—it was internal. And it took a clockmaker to describe the trouble and remedy it.

The lessons—what are they?

1. In the church are two classes of men. Some men strike correctly, but point incorrectly. Their daily lives and transactions do not, seemingly at least, point in the right direction. They seem careless of morals, indifferent to religion, and tolerant of the worst evils. The pointing is wrong. But wait. At the critical moment, when lines are sharply drawn, when the enemy is discharging his most destructive fire, when loyal subjects are fearlessly falling into line,—at such a critical moment these men boldly and resolutely stand among the foremost. They strike right. They redeem themselves in our thoughts. Yet a regret lingers that the pointing was not always as clear and uncompromising as the striking.

There are others,—some who point always correctly, but who never in a whole revolution strike correctly. They have pounds of theory, but never an ounce of practise. The form of godliness have they, but know nothing of the power. You see these men week after week, and they are seemingly pure, chaste, honest, severely moral, and intensely religious. But the critical moment comes, the moment that tries men's souls, and these men take position with the enemy. The striking is wrong. We are disappointed, and more than ever convinced that all that glitters is not gold.

2. In the church is another class of men. Throughout the entire circuit of their lives they both point and strike correctly. They do this year in and year out, and the equation of variation is not greater than belongs to imperfect material. They are the trees planted by the rivers of water, the lights of the world, the salt of the earth, the heroes of faith, the Abrahams, the Joshuas, the Jeremiahs, the Daniels, the Pauls. Their pointing and striking never cease to be seen and heard in the world. They are Secker's "singular Christians." Would that the church had more of them!

3. Briefly, if a preference must be expressed between the churchman that strikes correctly but points incorrectly, and the one that points correctly but strikes incorrectly, the choice must fall to him who strikes correctly. Correct striking indicates that the internal adjustments are correct. In the churchman it shows a right heart. Given a right heart, and the head will not go far wrong, nor stay wrong long. On the other hand, correct pointing depends upon outward arrangement. The consummate fiend may so skilfully adjust his outward relations as to appear a saint.

The churchman who strikes correctly is to be preferred to the one who points correctly. But better than either, is he who is correct both in his striking and pointing.

"Covet earnestly the best gifts."—*Selected.*

No other possession of life holds such preponderating value as one's friends. All beside these are a part of the scenery of the external and temporal world; but friendships are of the eternal and divine.—*Lilian Whiting.*



# Timely Topics

## AN EASTERN WAR CLOUD.

EVER since the close of the war between Japan and China, it has appeared very probable that there would be a war between Japan and Russia. The latter country has been working for many years to extend her power eastward, and has succeeded in getting a line of railroad from Russia in Europe through Siberia to Vladivostok, on the Japan Sea. This port is closed by ice the major portion of the year, and Russia greatly desires a warmer port or ports to the South. All the warm ports on the east coast of Asia are held by China or Corea, and it has been the object of Russian diplomats to secure some concession from these countries, that would give them what they desire.

The late war, which put Port Arthur and the whole country of Corea into the hands of Japan, was very annoying, to say the least, to Russia, as it seemed directly to thwart her long-cherished hopes. The sudden prominence of Japan and her springing into being as a first-class power also greatly irritated Russia, especially as she seemed to come up just at the time to prevent Russian expansion. Russia therefore interfered in the war, or at least in the settlement of the difficulties, and demanded that the Japanese should retire from Port Arthur and the Liau-Tong peninsula. Japan agreed to do this, but Russia is evidently in a hurry, and has lately repeated her demand with a good deal of emphasis. Again Japan consented, with the proviso that Russia should not take possession of the territory thus vacated. Still Russia is not satisfied; and she now demands that Japan withdraw her army from Corea. This is more than the island empire of the East can bear with honor, and the mikado politely but very firmly refuses to accede to this demand. Whereupon the Russian fleet of nineteen war vessels has set sail from Vladivostok for Corea, and it is reported on good authority that China has given Russia the privilege to use the harbor of Port Arthur, and to build railways in the Liau-Tong peninsula. Upon this the Japanese fleet is recalled from Formosa, and another terrible duel of the steel leviathans of the sea may soon occur.

All this is portentous; but a deeper tinge is placed upon the war-cloud by the attitude of Great Britain. The success of Russia in gaining the control of China in the great loan and in other ways, has awakened in England a well-founded fear that she will get possession of all the great seaports of China and Corea, and thus control the eastern trade so long held by English merchants. The result of this new move of Russia has therefore stirred England as she has not been moved before for years. The British press are unanimous in expressing the opinion that England cannot afford to allow the balance of power to be disturbed as it would be by such a preponderance of Russia in the East. In harmony with this general feeling of the English people, British ships have been ordered to Chinese waters to strengthen the fleet already there; and so urgent is the case believed to be, that some of the English papers express the fear that the Japanese fleet will be defeated before the British fleet can get to their support. It is needless to say that there is great activity in

military and naval circles in Great Britain.

Meanwhile negotiations will be carried on, and perhaps the war will be averted; but it may be that the little cloud, now only the size of a man's hand, will yet fill the whole European horizon.

While we have no desire to take sides in this possible conflict, and we deprecate war as barbarous and unchristian, there are reasons why we cannot desire the success of Russia should war actually occur. The defeat of England and Japan by Russia would result in the full control of China by Russia. This would mean the utter stagnation of China and a relapse into barbarism again, just as there seems to be a prospect for her to take a forward step toward civilization and progress. Russia, with its autocratic power and ignorant people, stands for despotism and intolerance. She is a despotic power in which the rights, wishes, and welfare of the people are little regarded. It would be a most disastrous thing for China to be controlled by such a power. On the other hand, England stands for constitutional government, the liberty of the people, and progress. Russia enslaves the peoples she conquers; England elevates and educates all with whom she comes in contact, as far as it lies in her power. So should England and Russia fight over China, the future of that great and populous country for weal or for woe will be decided.

## CRIMES AND CRIMES.

THE papers report a reign of terror in Chicago, and the police are bestirring themselves for the arrest of the violators of law. The chief of police has addressed a letter to the force, giving special attention to two kinds of criminals which do exceedingly trouble the city. The first-mentioned criminals are the Sunday barbers. There is an alarming frequency of this kind of criminals in the city. Some hundreds of shops were open, and one man reported that eleven hundred men were shaved in his shop in one day. It must be understood that the shaving is literal, and that cheating is not referred to.

Eleven hundred men made happy with a clean face, for ten cents apiece! Think of it! Eleven hundred criminals made in one shop in one day! This is a specimen of one class of crimes that Chicago is bound to suppress. It is very remarkable that it is not considered a crime to shave a man any other day than Sunday! It is also very unfortunate, to say the least, that there is no other day when a man is so tempted, and almost forced, to commit this particular crime as on Sunday! He is busy all the week, and a stubbly face is expected on work days; but when Sunday with its enforced idleness comes, one naturally wants to look pretty well, especially if one is going to church. But the law is inexorable; be shaved you must not. There is danger that the sharp razor will cut the very props of morality from underneath the city!

There are other crimes in Chicago which demand a little attention, and which Chief-of-police Badenoch mentioned after having mentioned the Sunday barbers, who appear to be the chief *barbarians*. Men are murdered and robbed. Burglars are systematically working the city. Street-cars are stopped, and all the people in them made to hand over their watches and money. The law makes these actions crimes *every* day in the week. In these cases it is the *deed*, and not the *day*, which makes the act a crime.

Now to be consistent, Chicago might do one of two things: make shaving a man a crime

on every day of the week alike, or allow thieves and robbers to carry on their work six days in the week, but prohibit it on Sunday! If shaving is a crime, it deserves no toleration whatever; if it is not a crime, it is an undue act of authority to prevent it on one day. The very fact that an act is not prohibited on six days in the week is sufficient evidence that it is not a crime against the state on the other day. Such laws have a tendency to make the people feel that law is but an arbitrary fiat, devoid of reason, and depending solely upon the will or caprice of the law-makers.

## TREMBLING TURKEY.

PROBABLY never before has the Ottoman empire been in so precarious a condition as now. The Armenian riot in Constantinople has had the effect of bringing the great powers of Europe to a sense of the true situation of Turkish affairs, and they united in a manifesto to the Porte, urging, even demanding, immediate attention to the amelioration of the condition of the Armenians, under threat of the total dismemberment of Turkey. To enforce this demand, an English fleet of fourteen ships-of-war lies off the island of Lemnos, waiting for orders. The jolly tars of Britain would like nothing better than to direct the fire of their big guns upon Constantinople, the capital city of the most rotten government on the face of the earth.

But although the whole Ottoman empire was trembling and tottering, the sultan refused to accede to the demands of the powers, and justified the destruction of the Armenians on the ground that they were rebellious. He evidently thought that the governments of Europe could not yet agree upon the manner of the division of his estate. Thus the sultan, descendant of some of the most powerful monarchs of past ages, holds his position as a sovereign by the slender tenure of the jealousies of those who are anxious to destroy his kingdom, and who are only waiting for a favorable opportunity to do so.

During all the time the negotiations have been going forward, the tension in Constantinople and in other cities of the empire was great. The Armenians in Constantinople did not dare to leave the churches, where they had taken refuge, and in Erzeroum and Trebizond the Moslems rose on the Armenians, and killed many of them. It is estimated that seven hundred Armenians have been killed in this outbreak.

Not only is there danger of the fall of the empire from its open enemies, but there is danger of at least a change of rulers by the Turks themselves. The divinity which is supposed to hedge a king is not always proof against poison or the dagger, and this is as true in Turkey as in any other country. The sultan is a victim to the greatest fear of secret assassination, and has lately secluded himself much more than usual, and doubled his guards. His brother, the previous sultan, is a prisoner, and is said to be insane, but his sons are reported to be ready for revolt.

At last accounts the sultan had yielded to the powers, and agreed again to carry out the reforms for Armenia which were agreed upon by the treaty of San Stefano. But a Turk's promise is worthless rubbish, at the best, and it is quite possible that, even should the sultan do the best he can, he will be unable to carry out the promised reforms. Probably the Armenians will continue to cause trouble until the Turkish empire is no more. May the day be hastened.





J. H. DURLAND, }  
M. E. KELLOGG, } EDITORS.

### HUNGERING AND THIRSTING.

"BLESSED are they which do hunger and thirst after righteousness: for they shall be filled." Matt. 5: 6. When once the soul has entered upon the path of holiness, away from self and sin and toward God; when it has recognized its poverty, mourned over its sins, and in true meekness has repented of them, then there is begotten in that soul an intense longing for the character seen in the Infinite. There will be a hungering and thirsting for righteousness, and the promise is that this desire shall be satisfied.

Here two of the most natural desires of all men are used to illustrate spiritual truth; but these terms are not used in the ordinary sense of one's going to his meals when the proper time comes, but rather in the sense that one has a most intense desire for food and drink. As a wanderer on the desert, perishing from hunger and thirst, *longs* for food and water lest he die, so should we desire the righteousness of God, for without it we shall perish. Hunger and thirst, then, express more than simply a faint desire for righteousness; an intense longing is meant.

What is righteousness, for which we should have such an intense desire?—It is the character of God, and it has been represented to us in two ways,—in the law of God and in Jesus Christ. In the first it is expressed in words as a rule of life; in the second it is seen in life itself,—the life lived by Jesus here upon earth. Every person who reads the law of God must admit that all its precepts are founded in equity; they express the right. But while all see that these precepts are right, all do not desire to observe them; and those who do desire to keep them, find themselves so weak that they are unable to obey this perfect law. Again and again they find themselves yielding to the seductions of sin, and doing what the law, which they admit in their own minds to be good, has forbidden. Sinful man is in actual bondage to himself; but there is a Liberator, who will befriend and succor all those who have this intense, earnest desire for righteousness.

Jesus has righteousness to bestow upon those who hunger and thirst for it; but how often it is the case that those who profess the name and religion of Jesus Christ desire to be saved,—to have eternal life,—much more than they desire the character, the righteousness, of God! Such persons overlook the best and the most precious part of the Christian's experience. They long for life, but not for righteousness. They would enter heaven if they could, just as they are; but this cannot be; righteousness must first be obtained.

The righteousness of God, which is right-doing, obedience to his law, can come to us only through Christ, who kept that law. The law demanded obedience, and Christ rendered it, so that he is the channel through which the righteousness of the law is given to us. To the penitent, hungering soul righteousness is given freely, covering all past transgressions. The whole past debt to the law is discharged at one time,—a glorious gift of righteousness.

Then the Lord takes the sinner into a partnership with himself. The sinner furnishes the will to do good, and the Lord supplies the power to live righteously. So by a gift bestowed upon us, and a life wrought within us, all done by Christ, we may be filled with the righteousness we need. The life, both past and present, may be filled with righteousness. The promise is certain to those who comply with the conditions. "Blessed are they which do hunger and thirst after righteousness: for they *shall be filled.*" Let us seek for it with all the heart. One of olden time said: "As the hart panteth after the water brooks, so panteth my soul after thee, O God. My soul thirsteth for God, for the living God." Should we not be in earnest to receive this gift of righteousness, that when our work is done the Lord may see in us those precious qualities which are worthy to be immortalized and taken into the heavenly kingdom?

M. E. K.

### APPEARANCE OF EVIL.

"ABSTAIN from all appearance of evil." There is a version that reads, "Reject all that appears base." Evil is anything that is opposite to good, anything that is contrary to God's will. "Ye that love the Lord, hate evil." The prophet in speaking of the Lord says, "Thou art of purer eyes than to behold evil, and canst not look on iniquity."

Thus we see that it should be our effort to keep as far away from evil as possible. The farther we are from evil the nearer we are to the Lord. In Rom. 12: 9, the apostle says: "Abhor that which is evil." To abhor is to "dislike bitterly."

We cannot abhor evil while we love those things that have the appearance of evil. A man who has turned away from drink is not safe as long as he seeks the company of those who indulge in drinking. Likewise, young people cannot be free from the evils of the present day as long as they follow the fashions of the world. If we do not dress as the people of the world do, but seek to be as near like them as possible without doing *just* as they do, we have the appearance of evil.

We may break off from dancing parties, theaters, and other entertainments of like nature; but as long as we love the pleasure parties, lawn socials, and all these entertainments that are so nearly of the same character as those we have separated ourselves from, we are in danger.

To forsake all is the only way to be safe. While on the enchanted ground, we are liable to fall. Let us seek the Lord for clear eyesight to see the very appearance of evil; and then let us turn from it.

J. H. D.

### "TO DO GOOD."

THE writer of the letter to the Hebrews offers this practical advice: "But to do good and to communicate forget not: for with such sacrifices God is well pleased." Heb. 13: 16. The whole tenor of the book of Hebrews is to show that the sacrifices ordained by God had ceased by limitation because of the offering of the true sacrifice, Jesus Christ. So we read in the preceding verse: "By him [Christ] therefore let us offer the sacrifice of praise to God continually, that is, the fruit of our lips, giving thanks to his name." So now the sacrifices we are to offer to God should be continual praise to his name. This is the fruit of our lips, which God loves to receive.

The same idea is brought out in Rev. 8: 3. Here a scene in heaven is revealed to our com-

prehension. The worship of God in heaven and upon earth is mingled together. "And another angel came and stood at the altar, having a golden censer; and there was given unto him much incense, that he should offer it *with the prayers of all saints* upon the golden altar which was before the throne." This text shows *how* the sacrifices of our lips are presented before God,—not imperfect as they ascend from us, but mixed with the holy incense from the angel's censer. Then "the smoke of the incense, *which came with the prayers of the saints, ascended up before God out of the angel's hand.*" How precious the thought that the poorest prayers, if offered in true penitence, are purified by holy incense before being placed upon the golden altar to be presented to God!

This idea is evidently referred to by Paul in Rom. 8: 26: "Likewise the Spirit also helpeth our infirmities: for we know not what we should pray for as we ought: but the Spirit itself maketh intercession for us with groanings which cannot be uttered." These scriptures should encourage us to offer sacrifices of praise to God.

But while we do this, we should not think that that is all we have to do to be Christians. A Christian is like Christ, and he "went about doing good"; and the good he did was to poor, suffering humanity. So the writer of the letter to the Hebrews, after having shown what sacrifices are now acceptable to God, shows that there are also sacrifices to be made for our fellow men which are very pleasing to God. So he adds: "But to do good and to communicate forget not: for with *such* sacrifices God is well pleased." There are sacrifices to be made for others,—a giving up of our own to do others good. "To communicate" has no reference to words, but to deeds. The Lord does not require us now to bring a firstling of the flock to sacrifice to him; he asks for the praise of our hearts and lips. But while we yield to him these sacrifices, let us remember the other sacrifices which are so pleasing in his sight. The hungry can be fed, the sick visited and helped, destitute children looked after, clothed, and otherwise provided for. We should not "forget" to do these things.

It is very probable that the great majority of professed Christians do not forget to perform the outward devotions prescribed by the church with which they are identified. They will go to church, attend to family prayers, read the church papers, contribute to the support of the gospel at home and abroad, and *believe* very sincerely all that the church believes. All these they ought to do; but if in their devotion to these things they should neglect to do something for others, forget the very test of faith,—*"to do good"* to the suffering,—they will not heed the words of inspiration we have quoted. An inspired apostle has said: "Pure religion and undefiled before God and the Father is this, To visit the fatherless and widows in their affliction, and to keep himself unspotted from the world."

A cold winter is approaching. Thousands of poorly-clad and insufficiently-fed people are looking forward to the coming winter with hearts filled with anxiety. Many a mother will deny herself needed clothing that her children may be clothed. There will be great opportunities for those who have something to spare to "communicate" to those who are needy. Let us then in the coming days remember these two kinds of sacrifices, being especially careful "to do good"; and God will be pleased with the efforts we will make.

M. E. K.



# BIBLE LESSONS AND NOTES

## LESSON 8.—RESULTS OF A UNION OF CHURCH AND STATE.

An Adulterous Alliance.

(November 23, 1895.)

1. WHAT did Christ say of his kingdom? John 18: 36.
2. What are the kingdoms over which men rule called? Rev. 11: 15.
3. What relation does the Lord sustain to his church? Isa. 54: 5; Eph. 5: 25-27.
4. What is said of the Lord, the husband of the church? Heb. 7: 25.
5. What, therefore, must be the nature of a union of the church with the state?—An adulterous union.

A DENIAL OF THE POWER OF GOD.

6. Since Christ is the husband of the church, need the church fear? Isa. 43: 1, 2; 41: 10.
7. What power is pledged to her protection? Isa. 40: 26; Matt. 28: 18.
8. What is the gospel of Christ? Rom. 1: 16.
9. From whom does this power come? Luke 24: 49; Acts 1: 8.
10. Could greater power be asked for the accomplishment of any work?
11. What do men deny when they ask the aid of civil power in gospel work?—The power of God.
12. When would professed Christians especially deny the power of God? 2 Tim. 3: 1-5.

HYPOCRISY AND RELIGIOUS PERSECUTION.

13. What is hypocrisy? (See note 1.)
14. Is it sin for a man to perform a religious act in which he has no faith? Rom. 14: 23.
15. What does law in civil government imply?—Force. (See Dan. 3: 15.)
16. What is the inevitable result of using force in religion?—Religious persecution. (See note 2.)

RUINOUS TO BOTH CHURCH AND STATE.

17. Whom did the Jewish church accept as king instead of Christ? John 19: 14, 15.
18. What was the result? Matt. 23: 37, 38; Luke 19: 41-44.
19. What will be the final result? Luke 19: 27.
20. When civil governments take sides in religious controversies, and become the instruments of persecution, what must invariably be the result? (See note 3.)

### NOTES.

1. *Hypocrisy*.—"Simulation, or feigning to be what one is not; the acting of a false part; especially, the assuming of a false appearance of virtue or religion; a deceitful show of good character, or a counterfeiting of religion."—*Standard Dictionary*.

2. Faith cannot be forced, neither can the conscience be guided or controlled by an appeal to arms. Any attempt, therefore, to compel men who have the courage of their convictions to do differently from what they believe, must necessarily result in persecution. It cannot result otherwise.

3. When church or state is turned from its proper course, it is on the road to destruction. The truth is well stated in the following words: "When religion and civil government are legally united, neither derives any benefit from the union, but both are seriously damaged by

it. The most characteristic feature of such a union is that of a bad religion and a bad government at the same time, each being harmed by the other."—*Samuel T. Spear, D.D., in "Religion and the State."*

"Secular power has proved a satanic gift to the church, and ecclesiastical power has proved an engine of tyranny in the hands of the state."—*Dr. Philip Schaff.*

### SABBATH-SCHOOL HINTS.

THERE is life in the word of God.

In God's word his will is revealed.

We must have the words *in us*, taken up into our will and life, and reproduced in our disposition and conduct.

If we receive the word in our hearts, and do in everything what God says, God will do what we ask of him in prayer.

We should not pass over our Sabbath-school lesson without receiving some part of God's truth in our hearts.

Commit the leading texts of the lesson to memory each week. Seek to fasten the central thoughts, so that they can be reproduced any time in the future in nearly the words of the text. Seek to be accurate in your quotations.

In the lessons under consideration, it will be a great help to make a careful study of the principles of religious liberty, as brought out in the various publications in our midst.

J. H. D.

### BOOKS OF THE BIBLE.

THEIR ORDER AND NAMES.

We have already noticed the first five books, called "the books of the law," also the following twelve books, called "the historical books." We next come to the third division, called "the poetical books," comprising that portion of the Bible from Job to the Canticles inclusive. The first of these books, Job, is supposed to have been written before any other books of the Bible. It is thought that Moses wrote it while he was a shepherd in the land of Midian. However, it is more properly introduced into this portion of the Scriptures because, being a poetical book, it is more nearly like the books immediately following it.

Next in order is the book of Psalms. We commonly speak of this book as having been written by David; and while it is true that he composed a large portion of it, there are several other authors who contributed to the book, among whom are Moses, Ezra, Hezekiah, etc. Probably the time during which the book was written may have covered a period of nearly a thousand years. It is certainly one of the most interesting of inspired productions, and is considerably longer than any other book. It will be noticed that in the Revised Version of the Bible the book is divided into five parts.

The following book, Proverbs, is a manual of practical rules of life, just as the Psalms is a manual of daily devotion. The book of Proverbs is doubtless only a small portion of all the inspired utterances of this nature that were given through the wise Solomon. It will be remembered that it is stated of him that he spoke three thousand proverbs. 1 Kings 4: 32. Counting each verse in this book for a proverb, there are less than a thousand of them to be found in the entire book; so there must be more than twice as many of his proverbs that have not been

handed down to us as those which we find written. In this last reference given, the Greek version of the Scriptures, the Septuagint, states that he spoke three thousand parables. In fact, a parable and a proverb are very much alike. A proverb is really a short parable. In this respect, the manner of teaching used by Solomon was very similar to that of our blessed Saviour, who taught as no one else in his day was teaching; for it is said of him that "without a parable spake he not unto them." Mark 4: 34. You will notice that in the proverbs the writer is continually drawing a comparison between different objects, in order to teach a great moral lesson. Just so in the parables of our Saviour; heavenly things were illustrated by well-known earthly affairs.

The name of the next book, Ecclesiastes, is of Greek origin. It is taken from the same word—*ecclesia*—from which "church" is taken. Solomon himself is here called a preacher; and of course what the preacher had to say would naturally be addressed to the church, or the *ecclesia*. This book contains very interesting and important instruction for the youth, especially the last chapter. It would be well for every Bible student to commit to memory the last two verses of this book. Of all the wisdom that Solomon ever had, of all the instruction ever given, the conclusion, or summing up, of the whole matter would be to "fear God, and keep his commandments."

The last of the so-called poetical books, the Canticles, or Songs of Solomon, is a very peculiar production; and in this part of the inspired word (as well as any other part, in reality), divine wisdom is needed, and the guidance of the Spirit of the Lord, to enable the reader to understand correctly what the Lord would teach us in this portion of the sacred writings. The same passage of Scripture that tells us the number of proverbs of Solomon, also states that his songs were a thousand and five. The Greek version to which reference has been made reads, "His songs were five thousand." Of this vast number of songs, this is said to be the only remaining song. Doubtless it would be true of the inspired sayings and writings of Old-Testament times, that, as stated in John 21: 25, the world could not contain (or appreciate) all this important instruction, if it had been preserved to us. We may be devoutly thankful that we are favored with so large a portion of the inspired utterances of the holy men of God, as have been delivered unto us. It seems beyond our comprehension to understand fully "the Song of songs which is Solomon's," yet, if faithful, we may, not far in the future, be able to sing and comprehend another more important and blessed song, mentioned in Rev. 15: 3, which is the song of Moses and the Lamb.

F. D. STARR.

MAKE yourselves nests of pleasant thoughts. None of us yet know, for none of us have been taught in early youth, what fairy palaces we may build of beautiful thought, proof against all adversity,—bright fancies, satisfied memories, noble histories, faithful sayings, treasure-houses of precious and restful thoughts which care cannot disturb, nor pain make gloomy, nor poverty take away from us—houses built without hands for our souls to live in.—*Ruskin.*

THE talent of success is nothing more than doing what you can do well, and doing well whatever you do—without a thought of fame.—*Longfellow.*





## THE BRIGHT SIDE.

NANNY has a hopeful way —  
Bright and busy Nanny.  
When I cracked the cup to-day,  
She said in her hopeful way,  
"It's only cracked — do n't fret, I pray."  
Sunny, cheery Nanny!

Nanny has a hopeful way,  
So good and sweet and canny.  
When I broke the cup to-day,  
She said in her hopeful way,  
"Well, 't was cracked, I'm glad to say."  
Kindly, merry Nanny!

Nanny has a hopeful way —  
Quite right, little Nanny.  
Cups will crack and break away;  
Fretting does n't mend or pay.  
Do the best you can, I say,  
Busy, loving Nanny.

— St. Nicholas.

## NELLIE'S HELPER.

I AM going to tell you a true story of a little girl; but before I get through with my story, she will be grown up. The little girl was called Nellie.

Nellie was born in Canada, in a little house on the eastern bank of the Ottawa River. She lived there four years, and then her mother died. There were then three little motherless children in that house—Nellie and her two brothers, one of them only two years old. Then their grandmother took Nellie and her older brother home with her to Vermont, to live with relatives there. O how sad their papa felt when they went aboard the steamboat, which came up close to the house! The mama was laid away in the grave, and now he must part with two of his children.

When they got to Vermont, Nellie found a good home. The people were kind to her; and when she was old enough, they sent her to school. They taught her to read the Bible, and in it she learned about Jesus. But after a while Nellie had to leave that place, and go to another, which was very different. The man was a wicked man, and took God's name in vain; and the woman had so much trouble that she did n't have time to teach Nellie; so she forgot the good things she had learned.

But Jesus was watching over Nellie, just as he does over every little boy and girl; and when she was ten years old, she went back to Canada to live with her uncle and aunt, who were taking care of her little brother. Years after that the aunt told me that when Nellie came there, she would swear and tell lies! But the aunt and uncle were so kind to her that she soon forgot all those bad words and ways.

But Nellie had a hasty temper, which troubled her very much. She would get angry and say unkind words, and sometimes strike her cousins and her little brother. Nellie felt very bad about it. She wanted to be a good girl; and often when she went to bed at night, she would think over all the naughty things she had done through the day, and say to herself, "I'm going to be a better girl to-morrow, and not say one unkind word."

When the morning came, she would remember this, and go down stairs with a bright face, for she felt sure that nothing could make her angry; but sometimes before she had eaten her breakfast, some one would say something she did n't like, and then her quick temper would

blaze up. Then she would be unhappy all that day. She wanted to control her temper. She kept saying, "I'm going to be good;" and still she was the same naughty girl. I expect you know why Nellie did n't get along any better;—no one told her about Jesus, and that he would help her if she would ask him to do it. Her uncle and aunt were good to her, but they did n't know much about Jesus themselves.

But when Jesus sees that little boys and girls are trying to be good, he always opens the way for them to hear about him, so that they will ask him to help them; so he opened the way for Nellie to hear about him. Her uncle hired a young woman to come into the family to teach his children. This young lady was a Christian. Nellie roomed with her; and every night before they went to bed, the teacher would read in the Bible, and pray to her heavenly Father to take care of them through the night, and help them to do right the next day. Nellie soon learned to love to read the Bible and to pray, and then she got along better.

But when the teacher went home, and Nellie had no one to talk with her about Jesus, sometimes she forgot to pray, and all her troubles then came back; but when she was sorry, Jesus forgave her.

Nellie was tired of living in this way; she wanted to have Jesus with her all the time. She had read about the new heart that Jesus gives to those who ask him, and that then he was with them all the time; and she made up her mind to ask him before she went to bed that night for this new heart. So after the rest of the family had gone to bed, and Nellie was alone in her room, she stepped to the window and opened it. The moon was shining brightly. The river was calm and still. There was no sound but the roaring of the falls, a mile away. She felt that this was a good time to talk with Jesus; so she said, "Jesus, you know how long I have tried to be a good girl, and could n't; you know all about this bad temper of mine, and how much trouble it makes me, and all about my naughty ways. Will you please take the naughty all out of my heart, and make it clean?" And then Jesus answered Nellie's prayer, because he knew that she meant it, and then she was very happy.

Nellie did n't forget to pray any more, whether she was at school or at home,—for of course it is not necessary that it shall be night, and everything beautiful and still, before we can ask Jesus to make our hearts clean,—but she did want very much to be with those who love Jesus. She asked him to open the way for her to go where she could attend church. Jesus answered her prayer after a long time. He does not always answer prayer right away, because he knows what is best for people; but he wants his children to love him so much that they will wait patiently till he gets ready; and Nellie waited patiently.

When she was sixteen years old, her uncle moved his family to Wisconsin, where Nellie found people who loved Jesus. She went to church and prayer-meeting, and was very happy. But not long after this her aunt wanted her to stop going to meeting so much, and go to dances, so that she would have more company; but Nellie loved her Saviour too much to do that. When the aunt found that she could not get Nellie to go to dances, she began to be cross. Nellie tried to please her, but could n't, and by and by her aunt would n't let the cousins be in the same room with her. This was very hard for Nellie, for she wanted them to see what Jesus had done for her, so that may be they would want to know about him, too.

About two years later Nellie was taken very ill, and her aunt thought she was going to die; but the Lord spared her life, and when she got well, she wanted to join the church. Nellie knew that there was no one in the family who would be willing for her to do this, but she wanted to get her father's consent if possible. He was living in the family then; but she had lived away from him so much since her mother died, that she felt afraid to talk to him about it; so she wrote him a note, asking his consent. Nellie was quite feeble yet; but one day when her father was alone in the parlor, she got up from her bed, and went into the room where he was. She handed him the note, and then lay down on the sofa while he read it. He then spoke so crossly to her that she trembled; but he told her she was of an age to do as she pleased. She joined the church when she got well, but the whole family treated her like a stranger.

One thing helped Nellie greatly during this time: There was a college in the town, and every morning at five o'clock the bells rang for prayers; then Nellie would get out of her bed, light her candle, read something from her Bible, and then ask Jesus to help her to do right all that day.

When Nellie was nearly twenty years of age, an uncle and aunt from Vermont came to Wisconsin to visit, and took Nellie home with them. There she found her cousins glad to see her; but they, too, were very fond of dancing, and fine clothes, and of going to parties. They knew that when Nellie was in Canada, her uncle sent her to dancing-school, and that she could play the piano very well, and they were proud of her; but when Nellie told them that she belonged to the church, and did n't dance any more, her cousins said, "Oh, your church is a thousand miles away; they will never know if you dance." Nellie said, "Jesus will know it."

When her cousins found that they could n't get Nellie to go to dances with them, they made a little party at their home for her; but before the company gathered, Nellie slipped away to a room by herself, and prayed to Jesus to help her that she might not do anything wrong that evening; and Jesus did help her. She played the piano for them, and by her pleasant, happy ways she won their love.

We have followed Nellie from the time she was four years old until she was twenty, and now we will bid her good-by. I have told this story of Nellie's early life so that you may know Jesus better, and that he wants to help every boy and girl as he helped Nellie.

MRS. JULIA LOOMIS.

## A GREAT MAN'S GREATEST THOUGHT.

At a dinner at the Astor House, when Daniel Webster was secretary of state under President Fillmore, after a period of silence which fell upon the company of some twenty gentlemen who were present, one of the guests said: "Mr. Webster, will you tell us what was the most important thought that ever occupied your mind?"

Mr. Webster slowly passed his hand over his forehead, and in a low tone inquired of one near him: "Is there any one here that does not know me?"

"No; all are your friends."

"The most important thought that ever occupied my mind," said Mr. Webster, "was that of my individual responsibility to God." And after speaking on this subject in the most solemn strain for about twenty minutes, he silently rose from the table, and retired to his room.—*Selected.*





### A DAY ON THE DANUBE.

NEXT to the Volga, the Danube is the largest river of Europe, and is the only one flowing from west to east. Its sources are in the Black Forest of Baden,—two springs forming the brooks Breg and Brigach, which unite at Donaueschingen; whence the stream is called the Danube, or Donau in the German. Hence in the dialect of the country this rhyme is current:—

“Brigach und Breg  
Bringen d' Donau z' weg.”

From oldest times, the Danube has been the largest natural road for commerce between central Europe and the Orient; and for a long time it formed the frontier of the Roman empire, serving as a successful barrier against the barbarians. To strengthen the frontier fortifications, the Roman emperor Probus built a wall through southwestern Germany, and this continuous fortification connected the Danube with the Rhine.

The Danube and the Rhine are for the German nations what the Ganges and the Nile are for India and Egypt,—sacred streams, celebrated in poetry and song, of which numberless myths and legends are told. Like the Rhine, portions of the Danube are famous for beautiful scenery, while many of its heights are crowned with villas and the ruins of castles from feudal days.

While the upper portion of the Danube is beautified by variegated mountain scenery, the lower portion, flowing mostly through prairie country, has low banks, and is in the main monotonous; but this monotony of the lower portion is in harmony with the sad history here enacted. From the time of Darius Hystaspes, down through the days of Alexander the Great, Trajan, Attila, Charles V, and Solyman, blood has flowed in streams down its banks. The course of the Danube was also the highway of migrating hordes of barbarians who swarmed into Europe from Asia, and overthrew the Roman empire. Along its banks encamped the Goths, the Heruli, the Lombards, the Huns, the Avars, the Magyars, and the Slavs. Descendants of these ancient barbarians still remain in southeastern Europe, and are known as the Hungarians, Servians, Bulgarians, etc.

At the present, three capitals are located on the Danube,—Vienna, Budapest, and Belgrade. It is an international stream, for on its banks touch Germany, Austria, Hungary, Rumania, Servia, Bulgaria, and Russia. It is navigable from Germany to the Black Sea, or over thirteen hundred miles of its length. Formerly, the city of Vienna was a short distance from the Danube, but connected with it by a canal which extended from the river around the city, and thus formed a part of the fortifications. The rapid growth of recent years has extended the city to the banks of the river.

Eight hours' ride on the cars takes one from Vienna to Budapest, the Hungarian capital. This is the liveliest and most enterprising city on the Danube. Until recently it was a place of ordinary size; but during the past twelve years it has been coming up by leaps and bounds, till now its population numbers nearly half a million. In appearance it is very much like an American city. The great grain fields

and pastures of Hungary contribute much to its wealth. Like Chicago, it is a great grain and stock market, besides having extensive manufactories.

In going to Turkey recently I passed down the Danube by rail as far as Orsova, and there took a river steamer, to spend one day of the journey on this historic stream. In another number I will give some details of this ride.

H. P. HOLSER.

### THE INVENTOR OF THE TELEPHONE.

ALEXANDER GRAHAM BELL was born at Edinburgh, Scotland, on March 3, 1847. His father and grandfather were both teachers of languages, and his father, Alexander Melville Bell, long enjoyed a reputation in the field of philology and linguistics, being the deviser of an ingenious system of “visible speech.” He intended that his son should follow his profession, and therefore early gave him instruction in the anatomy of the vocal organs, their various functions, and the different subjects belonging generally to the science of vocal physiology.

When quite a child, Bell was told by his father of an automaton speaking-machine which he had seen. The boy was so interested that he determined to attempt the construction of such an apparatus himself, and he then and there invented a speaking-machine, built it, and made it articulate one or two simple words. In 1865 the family removed from Scotland to London, and in about 1866, at Bath, in England, Bell conceived the idea of following up Helmholtz's synthetical experiments in the reproduction of sound, by attempting to transmit speech electrically.

Between the years 1867 and 1870 he made numerous electrical inventions based on the Helmholtz vowel apparatus, and, before he left England, had resolved to pursue one of these inventions, that of harmonic or multiple telegraphy, to a practical outcome. The idea of actual speech transmission was running in his mind all this time, like an undercurrent of thought that he could hardly formulate in definite expression; but it gradually took clearer shape, and Professor Bell has stated on the witness stand that to friends in England before 1870 he avowed his belief that we should “one day speak by telegraph.” In August, 1870, the Bell family emigrated from England to Brantford, Canada, and in April, 1871, Bell went from there to Boston, on the invitation of the Boston school board, to carry on a series of experiments with his father's system of “visible speech,” or physiological symbols for the deaf. He remained permanently in the neighborhood of Boston from Oct. 1, 1872, until he removed to Washington in 1881. From the very moment of his arrival in Canada, in 1870, up to the beginning of 1874, his mind was full of the scheme for the multiple transmission of telegraphic messages by means of musical tones, and he had other telegraphic inventions also in hand; but the old idea of speech transmission was persistent in claiming his attention, and gradually his thoughts and energies were narrowed down to this one field of investigation. He has himself narrated more than once the manner in which he proceeded, stage by stage, from his experiments with phonautographic apparatus, human ear drums, and apparatus for obtaining undulatory currents, up to the period when he and his assistant, Mr. T. A. Watson, were able to talk to each other telephonically over a short line in the Boston University, and when, by rapid strides, the apparatus was brought to a fair degree of efficiency.—*Electrician*.

### THE NEW MAXIM GUN OF SOLID STEEL.

MR. MAXIM, whose versatile genius is just now displaying its power in the two widely different fields of aeronautics and heavy rifled ordnance, has lately produced a five-sevenths-inch forty-five pounder gun that promises to revolutionize the art of gun manufacture. He proposes to manufacture guns from one solid integral forging, and thereby supersede the present expensive and tedious system of “building up.” It is well known that the present “built-up” gun consists of an inner core, or tube, which extends the full length of the gun, over which are shrunk successively a series of concentric “jackets,” or outer tubes. This is done in order that the whole mass of metal in the thickness of the gun may be thrown into a state of tension and may be ready to receive and resist instantaneously the bursting strain that is set up at the moment of firing. Were it not for this initial tension, the bursting effect of the charge would all be thrown upon the layer of metal that was next the bore, which would be ruptured before the next outlying mass of metal could assist in resisting the strain. In the built-up gun, as a result of the initial tension, every particle of metal from the center to the circumference is firmly gripping the bore; and the shock of discharge is felt and resisted instantaneously by the whole mass of the gun.

In the built-up gun, the work of carefully boring out and shrinking on the jackets is tedious and costly. Mr. Maxim saves this large item of expense. In his system the forging is roughly turned, and then annealed in a slow furnace. It is next carefully turned, smooth bored, and rifled. It is next mounted vertically in a special furnace, and rotated slowly, and a current of coal gas is forced through the bore. The carbon in the gas combines with the steel of the bore, hardening it, and improving the quality of the steel. “When the gun was red hot,” says Mr. Maxim, “the coal gas was shut off, and a very large stream of cold oil, under high pressure, was forced through the bore.” This cooled the bore, and the inside shrank to its finished dimensions. The outside body of the gun now gradually shrank upon the cooled interior portion, and was thus thrown into a state of high tension. It was found that the metal of the bore was compressed two hundredths of an inch.

In the firing tests, a forty-five-pound projectile was fired with a muzzle velocity of twenty-two hundred feet and a pressure of fifteen tons to the square inch. In the later proof charges, a pressure of twenty-two and one-half tons to the inch was reached. The guns stood the test excellently. One of them was two thousandths of an inch smaller after firing than before, showing that the enormous outside tension of the gun, assisted by the concussion of the discharge, actually compressed the bore to a smaller diameter. If such guns can be made without any undetected flaws in the metal, it is evident that heavy ordnance can henceforth be manufactured in half the time and at half the expense of the present built-up system.—*Scientific American*.

At the National Institute for the Blind, in France, cycling is one of the amusements. A species of home trainer is provided, on which the inmates of the institution ride. The wheels are so arranged that the actual speed is indicated on a dial, so that races are held, and some of the inmates have established records. The machines are also arranged so as to give audible signals at various speeds.—*Selected*.





Published Thursdays.

Annual Subscription, per copy	- - - -	\$1.00
Clubs of ten or more,	" - - - -	.75
Extra to foreign countries,	" - - - -	.25

**FROM SORROW TO GLADNESS.**

At close of day, when the sun's bright crown  
Jeweled in splendor the hazy west,  
I thought of my sorrows, and laid them down  
At the feet of my Saviour, there to rest.  
I joyfully left them, and hastened away,  
As the twilight deepened at close of day.

One drear, dread day (it was long ago),  
The paths of sadness my feet sore pressed.  
Anguish and tears,— I buried them low,  
And tenderly leaned on my Saviour's breast,  
Then knelt in secret to him to pray,  
Believing he ever will lead the way.

— MRS. ALICE M. AVERY-HARPER.

**THE HATTER WAS CORNERED.**

A NOTED temperance lecturer once visited the shop of a hatter, and asked him to give something to "the cause." The shopman coldly replied that he had no interest in it.

"I am sorry to hear that," said the lecturer; "for it shows me that you are not acquainted with your own business."

"If you are more familiar with my business than I am," said the man, with spirit, "I shall be happy to take lessons of you."

"Well," said the lecturer, "you deal in hats, and intend to make a little money on every hat you sell?"

"Yes."

"Whatever sends customers to your shop, and increases their ability to buy, promotes your interest, does n't it?"

"Certainly."

"Whatever makes men content to wear old, worn-out hats does you an injury?"

"Yes."

"Well, sir, if you and I were to walk out along the wharves and through the streets and lanes of this city, we should see scores of men wearing on their heads old, miserable, slouched hats, which ought years ago to have been thrown into the fire. Now, why do n't those men come at once and buy of you?"

"That is not a difficult question to answer; they are too poor to buy hats."

"What has more influence than liquor in emptying their pockets, and not only that, but injuring their self-respect, so that they are willing to wear old clothes?"

"Nothing," said the man hastily. "Here is some money for your cause. I am beaten!"

— Selected.

**HINDU WOOD CARVINGS.**

ORDINARY carpenters acquire wonderful facility for the rigid training that they receive in youth. Set to work at an early age, they are at once taught the use of the chisel on spare pieces of board, cutting zigzag, dog-tooth notching and flat ornaments. From this they progress to foliated moldings and diapers, and are finally taught to draw the pillar in all its parts and the mehrab, or door-casing. Thus a boy is often able to carve enriched moldings before he has learned ordinary work. Nothing could be better calculated than this course of instruction to

develop and enrich latent talent. Those who start with an inherited feeling for design cannot fail to acquire the crispness of touch and the surety of execution that are ultimately the most notable technical characteristics of their work. It is the perfection of hand training.

The wood-carver sits on the ground at his work, and holds between his bare feet the block which he is cutting. He has several chisels, a sort of adz, and a thick wooden spatula, and with these he marks out the most intricate designs and most delicate lines. The wonder is alike over the perfection of his completed work and the simplicity and even seeming inadequacy of his methods.

Much of this handicraft has disappeared with the change of social and political conditions, and the abolition of the feudal system by which the princes have ceased to encourage and support trained artisans as their private retainers. The bad modern English architecture that has been introduced into the country in government barracks and other public buildings, has vitiated native taste to a considerable degree, so that more than one native authority has been impelled to declare that "the good art is disappearing." But there is still left enough of good and honest workmanship to leaven the artistic lump. And it will be a long day before this Hindu art falls wholly into decadence.— *Chautauquan*.

**A GEOLOGICAL FIND.**

*First Scientist*: Eureka! What a find! Here is conclusive proof of all our theories. See this rock? It is as round as a barrel, and just about the same shape and size. It must have rolled for ages at the bed of some swift stream. Note how smooth it is.

*Second Scientist*: It is unlike any rock in this vicinity. It must have been brought from a great distance, probably by some mighty iceberg in the ages that are gone.

*Third Scientist*: There are mountains near here. It may have come down in a glacier.

*Fourth Scientist*: It is unlike any of the rock on these mountains. In fact, it is unlike any rock to be found on earth. It must have dropped from the moon. Here comes a farm hand. I will ask him if there are any traditions concerning it. See here, my good man, do you know anything about this strange rock?

*Farm Hand*: That useter be a barrel o' cement.— *New York Weekly*.

**AN IMMENSE LAKE OF FIRE.**

THE mind of terrestrial man is not capable of forming an idea of the awful grandeur of a lake of fire thirty thousand miles long and seven thousand miles wide, yet such a fiery body is exactly what the astronomers believe was within telescopic view on the surface of the planet Jupiter during the year 1893. At about that time "Notes for the Curious" contained an article on the "Mystery of Jupiter's Red Spot," but no cause for the gigantic "spot" had then been assigned. Since that time the astronomers have been busily engaged in comparing notes and figuring on the matter, and it is now pretty generally conceded by them that the phenomenon was nothing more nor less than a convulsive rolling back of the upper or cooler portions of the great planet's surface, which exposed the red-hot molten matter lying just beneath. Such an idea of the late astronomical enigma may be regarded as somewhat fanciful, but it seems very suggestive, in view of the probability that Jupiter is a planet yet in an intensely heated condition.

Jupiter's wonderful red-hot spot was first discovered in 1878, and has been in view several times since that date. Sometimes it is much smaller than others, and, whether large or small, may be seen to enlarge and contract, just as such a lake of fire would be apt to do when immense volumes of steam and heat were forced through the hardening, overlying stratum of a world which may even now properly be said to be in the process of creation.— *St. Louis Republic*.

**ANOTHER LARGE TELESCOPE.**

At the modest shop of the Clarks, in Cambridge, Mass., the lenses of the great forty-inch telescope for the Yerkes Observatory of the University of Chicago lie practically finished, and await only the final tests of the committee of inspection for their acceptance. These will probably be made in two or three weeks. The mounting of the telescope, however, will probably not be completed until spring, for the construction and equipment of so large an instrument is really a matter requiring much time. So far as the lenses are concerned, Mr. Clark considers them superior in definition and figure to any of the comparable glasses which have been made by the firm.

The largest work now in hand here is the new Percival Lowell telescope. It will be remembered that on his return from Arizona, Mr. Lowell was so well pleased with the results obtained that he at once expressed an intention to observe Mars during the opposition of 1896 with a large telescope, and from the very best site discoverable. He at once ordered a telescope from the Clarks, and sent an astronomer around the world to select the place for the observatory.

The telescope is to be of twenty-four inches aperture, a truly large glass, even as compared with the monsters which modern opticians have been able to construct, and an order was at once placed with Mantois, of Paris, for the disks of glass, which were to have been delivered early in August. They are now here a month late, and this lateness means a little more expedition on the part of the lens-shapers, since the completed telescope must be ready for Mr. Lowell at a given date in June of next year. An examination of the plates of glass shows them to be of the finest quality, and in the opinion of the experts, they have never been excelled by any of the disks which have been received there.

The flint glass has already received a rough grinding, and takes on something of the shape which it will have when completed; but there are many refinements and very large requirements in point of time and attention before it can even be tested as a lens, beyond which time there are all the necessities of delicate final correction. In the forming of these lenses some departures will be made from the regular methods which have heretofore been employed, notable among which will be the substitution of glass forms for the metal ones which have been customarily in use for the earlier processes.

For this telescope the Clarks are themselves constructing the mountings, which, aside from the pier, will weigh some tons. The material for the pier will depend in some measure upon the site selected, for if this should be in some desert, where stone is not available, a steel pier will be taken from Cambridge. The question of site is still undetermined, reports in the newspapers to the contrary notwithstanding, and Mr. Douglass is still abroad in search of a perfect atmosphere.— *Scientific American*.